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Date Printed: <b>07/06/2011</b>	Released: <b>02/11/2011</b> Rev. Num: <b>2.0</b>
Approved By: <b>Robin Smith</b>	

# Cobalt Thiocyanate Test

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## 1. Purpose and Scope

This color test is used in forensic drug analysis as a test method for the differentiation of the chemical forms (salts or base) of cocaine.

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## 2. Definitions

No definitions are required for this instruction.

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## 3. Safety Instructions

Chemical Hazard

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## 4. Instructions

### 1. Cobalt Thiocyanate preparation

Cobalt Thiocyanate solution is prepared by adding 6 grams of cobalt nitrate and 18 grams of potassium thiocyanate to 100mL distilled water.

### 2. Test Procedure

Add sample material to a small test tube.

Add 1-2 mL hexane to test tube and vortex.

Remove aliquot of hexane to 2nd test tube.

Add 5-6 drops of the cobalt thiocyanate solution to test tube.

Vortex and observe a blue, fluffy precipitate indicating the presence of cocaine base.

To 1st test tube, add 1-2 mL distilled water, vortex and allow to separate.

Remove aliquot of bottom layer (water) to 3rd test tube.

Add chloroform to 3rd test tube.

Add 5-6 drops of cobalt thiocyanate solution to test tube.

Observe for blue color which transfers into the chloroform layer indicating the presence of cocaine salts.

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## 5. Notes

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### 6. FC-Instruments/Equipment/Materials

Pipet

Test tubes

Vortex

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### 7. FC-Chemicals/Reagents

Chloroform

Cobalt Thiocyanate Reagent

Distilled water

Hexane

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### 8. Records

Drug Chemistry Checklist

FORM-FC-01

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### 9. Policy References

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### 10. Procedure References

No procedures are referenced by this instruction.

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### 11. Instruction References

No instructions are referenced by this instruction.

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### 12. Other Reference Documents

There are no other reference documents for this instruction.

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